# LINKSYS®

A Division of Cisco Systems, Inc.

EtherFast®

# Network Attached Storage

120GB with PrintServer

# User Guide

WIRED

Model No. **EFG120**

CISCO SYSTEMS

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> **WARNING:**   This product contains chemicals, including lead, known to the State of California to cause cancer, and birth defects or other reproductive harm. *Wash hands after handling.*

## How to Use this Guide

Your guide to the Network Attached Storage has been designed to make understanding networking with the Network Attached Storage easier than ever. Look for the following items when reading this guide:

This checkmark means there is a note of interest and is something you should pay special attention to while using the Network Attached Storage.

This exclamation point means there is a caution or warning and is something that could damage your property or the Network Attached Storage.

This question mark provides you with a reminder about something you might need to do while using the Network Attached Storage.

In addition to these symbols, there are definitions for technical terms that are presented like this:

> *word: definition.*

Also, each figure (diagram, screenshot, or other image) is provided with a figure number and description, like this:

**Figure 0-1: Sample Figure Description**

Figure numbers and descriptions can also be found in the "List of Figures" section.

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# Chapter 1: Introduction

## Welcome

Thank you for choosing the EtherFast Network Attached Storage (120GB with PrintServer) from Linksys. Now you can quickly and easily add 120 gigabytes of storage space onto your network.

This stand-alone network appliance features two hard drive bays—one with a 120GB drive in it, and the other available so you can add an additional up to 120GB IDE hard drive as your storage needs grow.

Installation of the Network Attached Storage is simple—just plug it directly into your 10/100 network, and it's instantly available. Or connect it to a Gigabit network! It can serve as your network's DHCP server, and also has a built-in print server so you can add a network printer without burdening a PC with spooling chores.

The Network Attached Storage features built-in disk utilities, accessible through your web browser. You can run a self-test, and scan or defrag the disk(s). If you've installed a second disk drive, you can back up one drive to the other, either manually or on a schedule. Additional quick-connect hard drive trays are available, so you can quickly swap multiple backup drives to create rotating backups.

For even more flexibility and utility, the Network Attached Storage can be set up to be accessible directly from the Internet—uploading and downloading files either via a web browser or by FTP. Files can be available publicly, or create password-protected accounts for your authorized users.

The Network Attached Storage is a fast, powerful, flexible and economical addition to your network. Use the instructions in this User Guide to help you connect the Network Attached Storage, set it up, and configure it for easy use. These instructions should be all you need to get the most out of the EtherFast Network Attached Storage (120GB with PrintServer).

## What's in this User Guide?

This user guide covers the steps for setting up and using the Network Attached Storage.

- Chapter 1: Introduction
  This chapter describes the Network Attached Storage's applications and this User Guide.

- Chapter 2: Getting to Know the Network Attached Storage
  This chapter describes the Network Attached Storage's physical features.

- Chapter 3: Connecting the Network Attached Storage
  This chapter shows you how to connect the Network Attached Storage to your network.

- Chapter 4: Setting Up the Network Attached Storage
  This chapter shows you how to use the Network Attached Storage's Setup Wizard to easily set it up.

- Chapter 5: Configuring the Network Attached Storage
  This chapter show you how to manage the Network Attached Storage online using its Web-based Utility.

- Appendix A: Troubleshooting
  This appendix describes some potential problems and solutions, as well as frequently asked questions, regarding installation and use of the Network Attached Storage.

- Appendix B: Installing a Second Hard Drive
  This appendix helps you install a second hard drive.

- Appendix C: Setting Up the Built-in PrintServer
  This appendix explains how to use the Network Attached Storage's built-in PrintServer.

- Appendix D: Windows Help
  This appendix describes how you can use Windows Help for instructions about networking, such as installing the TCP/IP protocol.

- Appendix E: Glossary
  This appendix gives a brief glossary of terms frequently used in networking.

- Appendix F: Specifications
  This appendix provides the Network Attached Storage's technical specifications.

- Appendix G: Warranty Information
  This appendix supplies the Network Attached Storage's warranty information.

- **Appendix H: Regulatory Information**
  This appendix supplies the Network Attached Storage's regulatory information.

- **Appendix I: Contact Information**
  This appendix provides contact information for a variety of Linksys resources, including Technical Support.

# Chapter 2: Getting to Know the Network Attached Storage

## The Back Panel

The Network Attached Storage's ports and Reset button are located on the back panel.
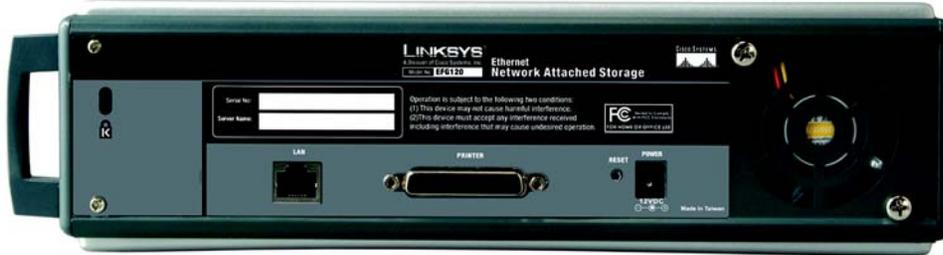


**Figure 2-1: Back Panel**

| | |
|---|---|
| **LAN Port** | This **LAN** (Local Area Network) port connects to an Ethernet network device, such as a switch or router. (You can also connect the Network Attached Storage directly to a computer.) |
| **PRINTER Port** | The **PRINTER** port connects to a printer using a parallel cable. |
| **Reset Button** | This button is used to reset the Network Attached Storage's IP address and password to their factory defaults. |
| | Press and hold this button for three seconds. The IP address will be reset to the default value of **192.168.1.77**, with a subnet mask of **255.255.255.0**, and the password will be reset to its default, **admin**. After the reset has occurred, the Network Attached Storage will beep once. |
| **POWER Port** | Connect the power adapter here. |

⚠️ **IMPORTANT:** Never remove the power adapter while the Network Attached Storage is powered on. Make sure you press the power button on the front panel to power off the Network Attached Storage before removing the power adapter.

## The Front Panel

The Network Attached Storage's LEDs, which indicate status information about network activity, and power button are located on the front panel.

**Ready/Status**    Green or Orange. This LED is solidly lit green when the Network Attached Storage is working properly. It flashes during start-up, shutdown, any self-test, or a firmware upgrade. If the LED is orange, there is an error.

**LAN**    Green or Orange. The **LAN** LED serves two purposes. If the LED is continuously lit, the Network Attached Storage is successfully connected to a device through the LAN port. If the LED flashes, it indicates network activity. If the LED is orange, there is a data collision.

**Disk**    Green. The **Disk** LED flashes when the Network Attached Storage is reading or writing data.

**Disk Full**    Green. The **Disk Full** LED lights up when the Network Attached Storage has reached its maximum storage capacity. It flashes when it reaches 98% of total capacity.

**BackUp**    Green. The **BackUp** LED flashes when the Network Attached Storage's backup utility is active.

**Disk 2**    Green. The **Disk 2** LED flashes when Disk 2 is reading or writing data.

**Disk 1**    Green. The **Disk 1** LED flashes when Disk 1 is reading or writing data.

**Power Button**    If the Network Attached Storage is powered off, you can start it up by briefly pressing the power button. To power down the Network Attached Storage, press the power button, and its internal shutdown process will begin. The Network Attached Storage must be powered off this way, or through the Administration - Status tab of the Web-based Utility (refer to "Chapter 5: Configuring the Network Attached Storage").



**Figure 2-2: Front Panel**

## The Beeper Codes

The Network Attached Storage has an internal beeper that beeps to indicate certain events.

**1 Beep**          This signals that the Reset button or power button has been pressed.

**2 Beeps**         When this is repeated every five seconds for one minute, it signals that the Network Attached Storage is configured as a DHCP client, but no DHCP server has responded to the DHCP client's request for an IP address.

**3 Beeps**         When this is repeated every 15 seconds for three minutes, it signals that the Network Attached Storage's hard drive usage exceeds 98% of total capacity.

**5 Beeps**         When this is repeated every 15 seconds for three minutes, it signals that the Network Attached Storage is overheating. The Network Attached Storage will automatically shut down three minutes after the first beep.

# Chapter 3: Connecting the Network Attached Storage

Follow the steps below to physically connect the Network Attached Storage to your network.

1. Connect an Ethernet network cable to the LAN port of the Network Attached Storage. Then connect the other end of the cable to a switch, router, or PC.

2. (Optional) Connect a standard parallel printer cable to the PRINTER port of the Network Attached Storage. Then connect the other end to your printer. (For more information about adding a printer to your network, refer to "Appendix C: Setting Up the Built-in PrintServer.")

3. Plug the supplied power adapter into the Network Attached Storage's power port. Then plug the power adapter into an electrical outlet, preferably a surge protector.

4. Press the power button once on the front panel of the Network Attached Storage.

   If you have connected a printer to the Network Attached Storage, then power on the printer.

5. The Network Attached Storage will run a self-test lasting two or three seconds prior to actual boot-up. During the self-test, most of its LEDs will be lit or flashing. After the self-test, the boot process will begin and should last only a few minutes. When most of the LEDs turn off and only the Ready/Status LED is solidly lit green, the boot-up process is complete. If the Ready/Status LED is orange or the Network Attached Storage repeatedly beeps, then there is a hardware problem. Review the descriptions of the beeper codes in "Chapter 2: Getting to Know the Network Attached Storage" for more information.

**Proceed to "Chapter 4: Setting Up the Network Attached Storage."**



**Figure 3-1: Connect the Ethernet Network Cable**



**Figure 3-2: Connect the Power Adapter**

# Chapter 4: Setting Up the Network Attached Storage

## Overview

Now that everything is connected and powered on, you are ready to configure the Network Attached Storage so that it is accessible to the users on your network. You will have to run the Network Attached Storage's Setup Wizard on your PC to set up the Network Attached Storage's basic settings.

## Setup Wizard

1. Insert the Setup Wizard CD-ROM into your PC's CD-ROM drive.

2. The *Welcome* screen should appear after a few seconds. If it does not appear, click the **Start** button, select **Run**, and enter **D:\SetupUtility.exe** (if "D" is the letter of your CD-ROM drive) in the field that appears. Then press the **Enter** key.

3. The *Welcome* screen provides you with these options:

   **Setup**. Click the **Setup** button to continue with the setup procedure.
   **User Guide**. Clicking on this opened this User Guide.
   **LINKSYS Web**. Click this to visit the Linksys web site if you have an active Internet connection.
   **Exit**. Click the **Exit** button to exit the Setup Wizard.

   To set up the Network Attached Storage, click the **Setup** button.

4. The Setup Wizard will automatically search for any Network Attached Storage currently on your network or attached to your PC. If it fails to detect the Network Attached Storage or if a Network Attached Storage has been installed since the Setup Wizard's last search, click **Search Again** to locate the Network Attached Storage. Select the Network Attached Storage that you want to set up. If you want to create a shortcut to this Network Attached Storage, click **Create a Shortcut**.

   Then click the **Yes** button to change any of its settings, or click the **No** button to accept its settings and exit the Setup Wizard.



**Figure 4-1: Setup Wizard's Welcome Screen**



**Figure 4-2: Select the Network Attached Storage**

5.  The next screen that appears has the Network Attached Storage's IP settings. Select **Dynamic IP Address** if you already have a DHCP server, such as a router, assigning IP addresses to your network devices. Select **Fixed IP Address** if you will set the Network Attached Storage's IP address and network information. Click the **Next** button to proceed or the **Back** button to return to the previous screen.
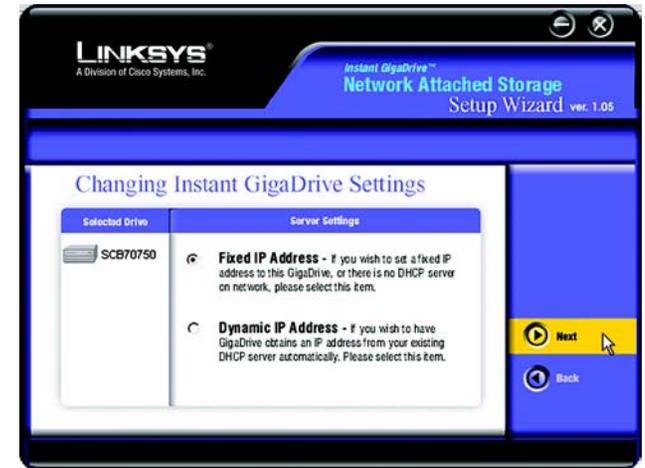
Figure 4-3: IP Settings Screen

6.  If you selected Dynamic IP Address, proceed to step 7. If you selected Fixed IP Address, then enter the following information:

    •   **Server Name**. Enter a descriptive name for the Network Attached Storage. This is especially helpful if you have more than one storage device attached to your network.

    •   **IP Address.** Enter the Network Attached Storage's IP Address here, making sure that it is on the same LAN segment as the PC running the Setup Wizard.

    •   **Subnet Mask.** Enter the Subnet Mask in the fields. It must match the Subnet Mask of the other devices on your network. It is set by default to **255.255.255.0**.

    •   **Gateway.** Enter the IP address of your network gateway, which is usually your router.

    Click the **Next** button to proceed or the **Back** button to return to the previous screen.
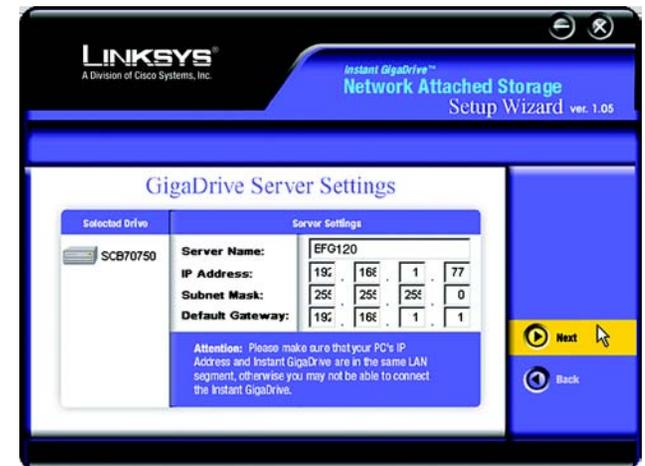
Figure 4-4: Fixed IP Address Screen

7. If you do not have a DHCP server on your network, you can use the Network Attached Storage as your network's DHCP server. To use the Network Attached Storage as a DHCP server, select **Enable DHCP Server**. Then enter the range of IP addresses you want to assign on your network. The final fields of the *Start* and *Finish IP Addresses* can range from 2 to 253.

- **Enable DHCP Server**. Select this feature only if you want the Network Attached Storage to assign IP addresses to your network devices. In most cases, you will not use this setting because you already have a network router or gateway assigning IP addresses.

- **Start IP Address.** Enter the starting IP address of the range you want to assign.

- **Finish IP Address.** Enter the last IP address of the range you want to assign.

Click the **Next** button to proceed or the **Back** button to return to the previous screen.
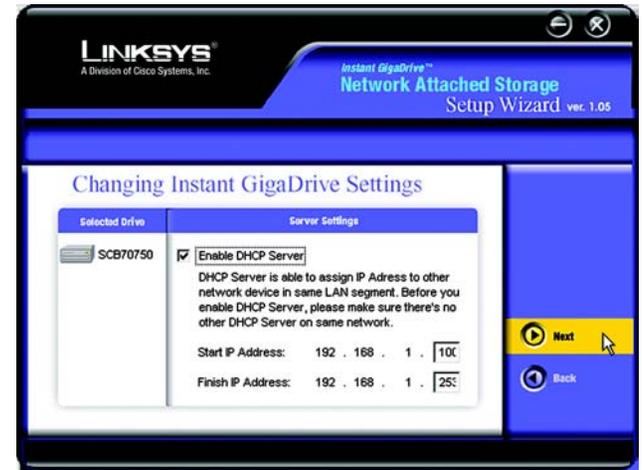
**Figure 4-5: DHCP Server Settings Screen**

8. Change the time and date on the Network Attached Storage.

- **Local Time**. Set your current time here.

- **Time Zone**. Select your local time zone from the drop-down menu here.

- **Local Date**. Set your current date here.

Click the **Next** button to proceed or the **Back** button to return to the previous screen.
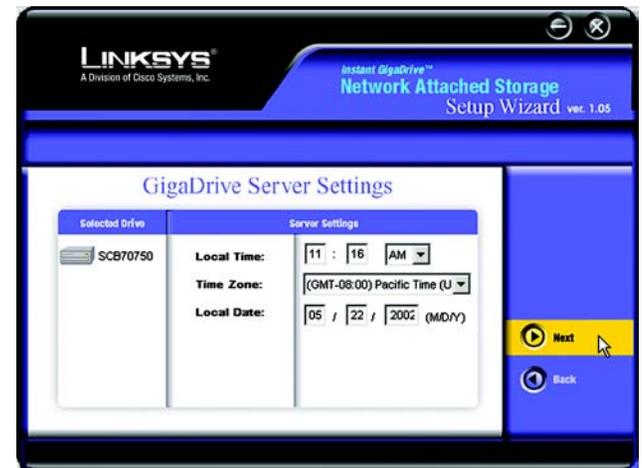
**Figure 4-6: Time and Date Settings Screen**

9.  Review the Network Attached Storage's settings. If they are correct, click the **Save** button. If you would like to change them, click the **Back** button to return to a previous screen.
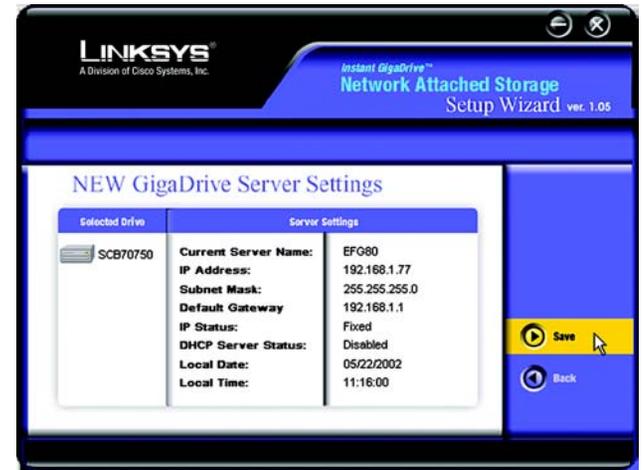


**Figure 4-7: Review Settings Screen**

10. The next screen will verify if you want to change the settings. To save these changes, click the **OK** button, or click the **Cancel** button to return to the previous screen.
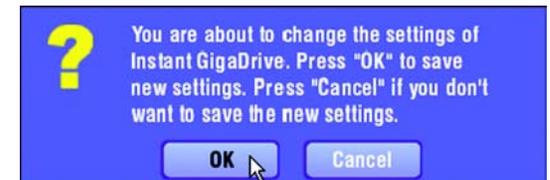


**Figure 4-8: Confirm New Settings will be Saved**

11. You have now successfully set up the Network Attached Storage. Click the **Exit** button to exit the Setup Wizard, or click **Install Data Protection Software** to install the BrightStor® ARCserve® Backup for Windows software, a free 30-day trial program to back up your data.

    If you want to install the BrightStor ARCserve Backup for Windows software, proceed to the next section.



**Figure 4-9: Congratulations Screen**

## Installation of BrightStor ARCserve Backup for Windows

1. You will see the *InstallAnywhere* screen while the installation is being prepared.



**Figure 4-10: InstallAnywhere Screen**

2. When you see the screen for the Network Attached Storage and BrightStor ARCserve Backup for Windows, select the appropriate language, and click the **OK** button.



**Figure 4-11: Start of Installation Screen**

3. On the *Welcome* screen, click the **Next** button to proceed or the **Cancel** button to cancel the installation.



**Figure 4-12: BrightStor ARCserve Backup Welcome Screen**

4. Read the License Agreement, and click the **I Agree** button to accept the agreement. If you do not want to accept the agreement, click the **I Disagree** button to end the installation. To return to the previous screen, click the **Back** button.
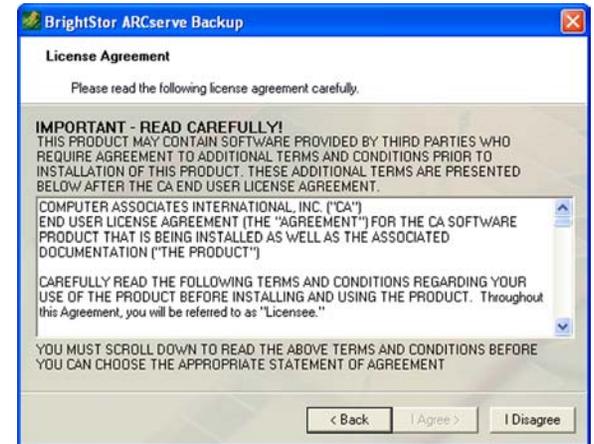


**Figure 4-13: License Agreement Screen**

5. On the *Customer Information* screen, complete the *User Name* and *Organization* fields. Click the **Next** button to proceed or the **Back** button to return to the previous screen.
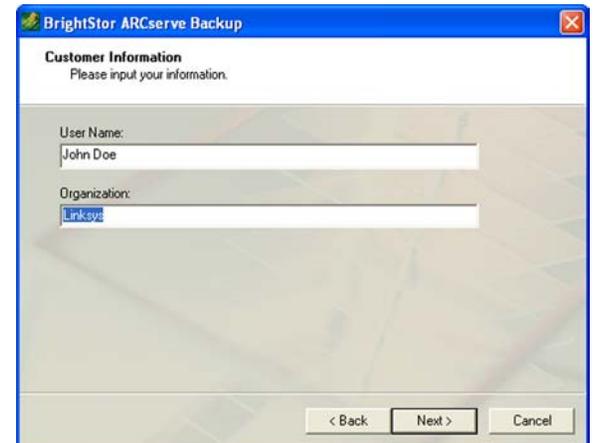


**Figure 4-14: Customer Information Screen**

6.  On the *License Key Entry* screen, do not enter anything in the fields provided. Click the **Next** button to proceed or the **Back** button to return to the previous screen.
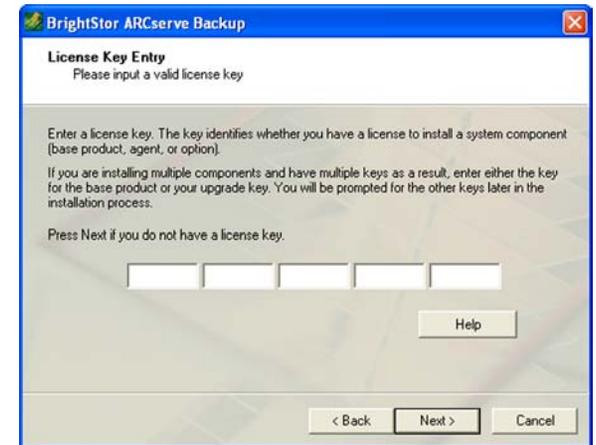


**Figure 4-15: License Key Entry Screen**

7.  On the *Select Install Type* screen, select **Local Install**. Click the **Next** button to proceed or the **Back** button to return to the previous screen.
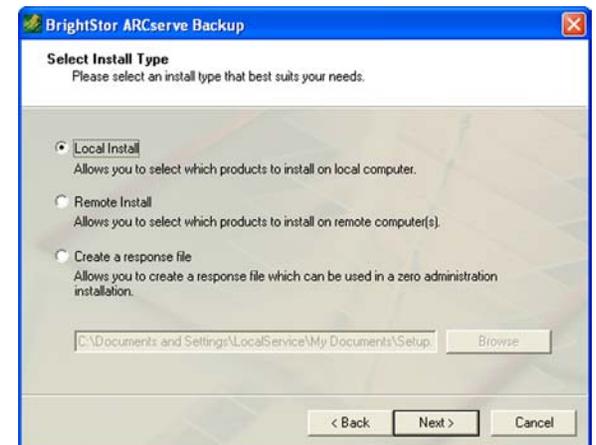


**Figure 4-16: Select Install Type Screen**

8.  On the *Select Products* screen, make sure that **Brightstor ARCserve Backup** is selected. Click the **Next** button to proceed or the **Back** button to return to the previous screen.
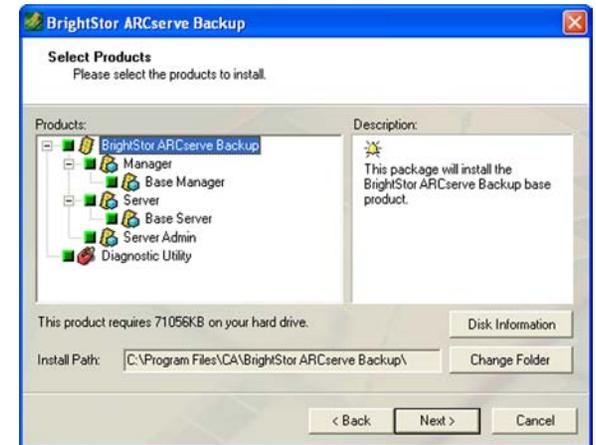


**Figure 4-17: Select Products Screen**

9.  On the *Select Database* screen, select **Standard Database**. Click the **Next** button to proceed or the **Back** button to return to the previous screen.
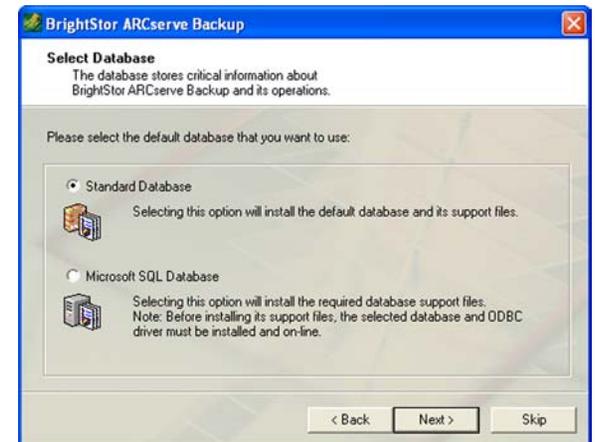


**Figure 4-18: Select Database Screen**

10. On the *Set Password* screen, complete the *Password* field. Enter the Password again in the *Confirm Password* field. Click the **Next** button to proceed or the **Back** button to return to the previous screen.



**Figure 4-19: Set Password Screen**

11. On the *System Account* screen, you will need to specify a user who will have administrator and backup operator rights. Complete the *User Name*, *NT Domain/Computer Name*, *Password*, and *Confirm Password* fields. Click the **Next** button to proceed or the **Back** button to return to the previous screen.
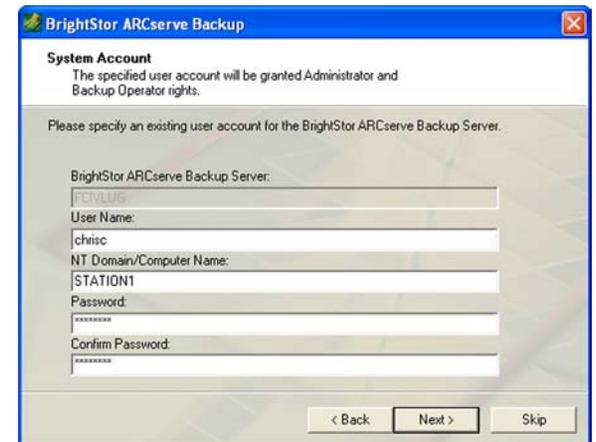


**Figure 4-20: System Account Screen**

12. On the *Product List* screen, click the **Install** button to proceed or the **Back** button to return to the previous screen.
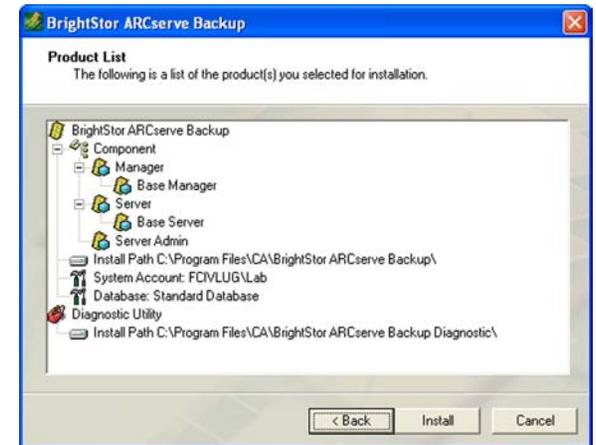


**Figure 4-21: Product List Screen**

13. The *Copy Files* screen will appear while licensing files are being copied to your computer.
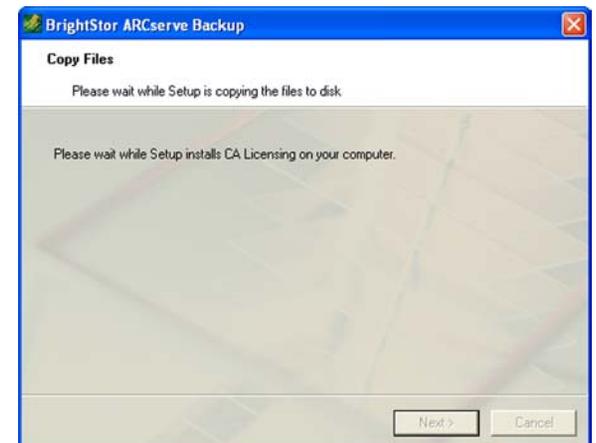


**Figure 4-22: Copy Files Screen**

14. On the *Licensing Information* screen, click the **Continue** button to proceed.
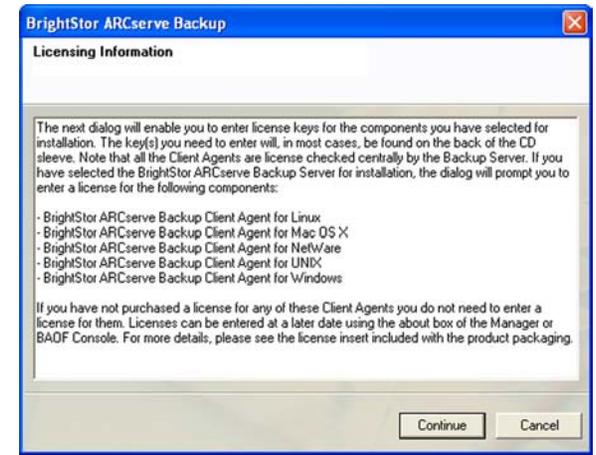


**Figure 4-23: Licensing Information Screen**

15. On the *License Verification* screen, make sure that **Use Trial Version** is selected. Then click the **Continue** button to proceed.
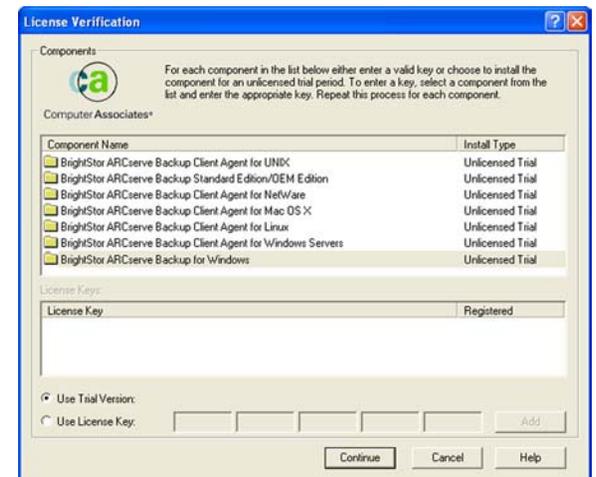


**Figure 4-24: License Verification Screen**

16. The *Copy Files* screen will appear while the software is being copied to your computer.
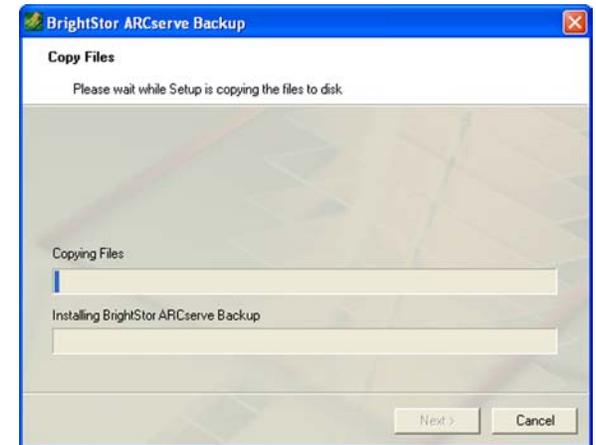


**Figure 4-25: Copy Files Screen**

17. On the *Install Summary* screen, click the **Finish** button.
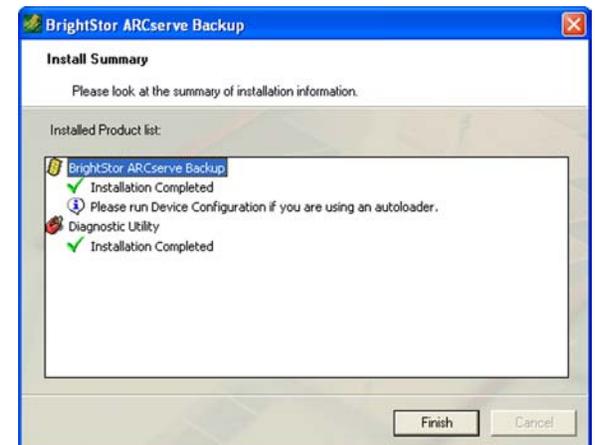


**Figure 4-26: Install Summary Screen**

18. To register the Network Attached Storage now, select **Register now**. Then click the **Continue** button.



**Figure 4-27: Registration Screen**

19. Click the **OK** button.



**Figure 4-28: Registration Completed Screen**

20. An icon will appear on your desktop after you register the Network Attached Storage. Double-click the icon.



**Figure 4-29: Desktop Icon**

21. You will be offered a special offer on purchasing the software after the free 30-day trial. Click the **OK** button.
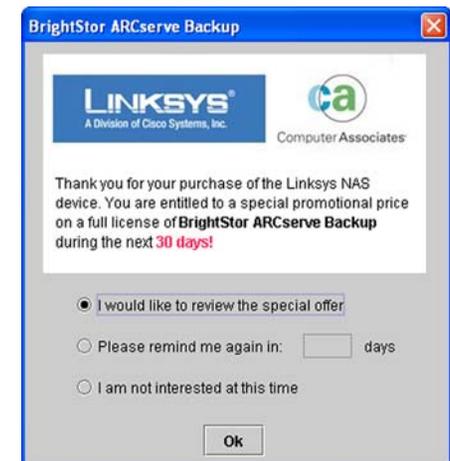


**Figure 4-30: Special Offer Screen**

22. Read the information, and click the **Continue** button.



**Figure 4-31: Information Screen**

23. If you want to purchase the software, enter your information, and click the **Checkout** button.
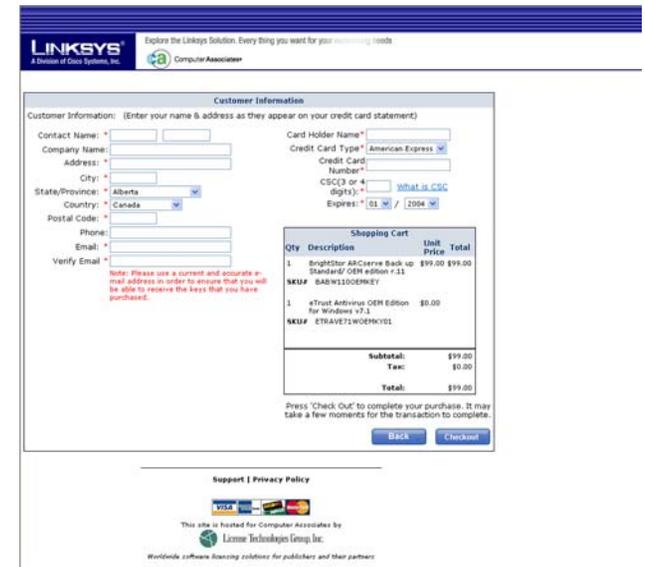


**Figure 4-32: Purchase Software Screen**

# Chapter 5: Configuring the Network Attached Storage

## Overview

For advanced users, the Network Attached Storage offers a Web-based Utility. This chapter will explain all of the functions available, including all administrative tasks.

## Access to the Web-based Utility

Open the web browser on any networked PC. Enter **http://192.168.1.77** in the *Address* field. Press the **Enter** key, and the WEB Management Home Page will appear.

**NOTE:** The Network Attached Storage is designed to function properly after using the Setup Wizard. This chapter is provided solely for those who wish to perform more advanced configuration or monitoring.
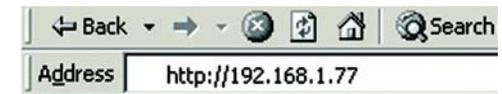


**Figure 5-1: Accessing the Web Utility**

## The WEB Management Home Page

On this screen, the status information of the Network Attached Storage will appear.

### GigaDrive Status

**Server Name**. The name of the Network Attached Storage is displayed here.

**IP Address**. The IP address of the Network Attached Storage is shown here.

**Disk Usage**. The status and capacity of Disk 1 and Disk 2 are shown here.

To access content, click the appropriate link. For access to private data, click **User Log in (Private Data)**, and enter your User Name and Password. For access to public data on Disk 1 or Disk 2, click **Disk 1 (Public Data)** or **Disk 2 (Public Data)**.



**Figure 5-2: WEB Management Home Page**

## The Home Tab - User Log in (Private Data)

After you have logged in, you will see a screen that you can use to access your shares. These shares will be listed with the following information: Type, Name, On Disk (location), and Comment.
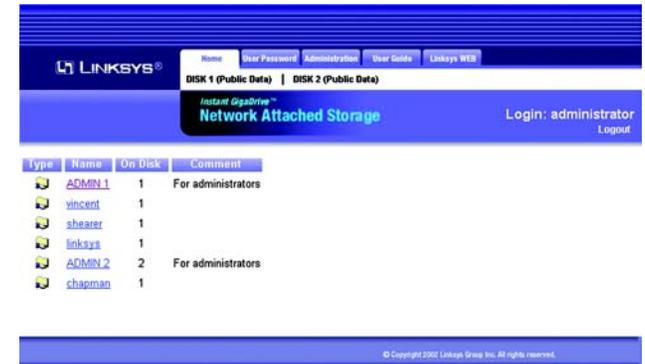


**Figure 5-3: Home Tab - User Log in (Private Data)**

## The Home Tab - Disk 1 (Public Data) or Disk 2 (Public Data)

You will see a screen that shows the data available to everyone. The data will be listed with the following information: Name, Size, and Modified Date.



**Figure 5-4: Home Tab - Disk 1 (Public Data)**

## The User Password Tab

On the *User Password* screen, any user can change their Network Attached Storage password.

**User name**. Enter your user name, which should be the same as your network login.

**Existing password**. Enter your Network Attached Storage password.

**New password**. Enter your new password in the *New Password* field. This new password can be up to 15 hexadecimal characters long. (Hexadecimal characters are numbers "0" to "9" and characters "A" to "F".)

**Confirm new password**. Enter this new password again in the *Confirm new password* field.

Click the **Save** button to save your new password, **Cancel** to clear all changes, or **Help** to get further information about any setting on this screen.



**Figure 5-5: User Password Tab**

## The Administration Tab - LAN

When you click this tab, you will be asked to enter your user name and password for the Network Attached Storage. If you have not already changed the default settings, then enter the default user name, **administrator**. There is no password by default. Then you can set the Administrator's user name and password through the Administration tab's *Users* screen.

### LAN Settings

You will be able to configure some of the settings you saved from the Setup Wizard.

#### IP Address

Select the **Obtain IP Address automatically (DHCP client)** setting if you already have a DHCP server, such as a router, assigning IP addresses to your network devices. If you want to give the Network Attached Storage a static IP address, select **Fixed IP Address (recommended)** and enter the following information:

**IP Address.** Enter the Network Attached Storage's IP Address here, making sure that it is on the same LAN segment as the network on which the Network Attached Storage is running.

**NOTE:** No two users can have the same password.



**Figure 5-6: Login Screen**

**Network Mask.** Enter the Subnet Mask in the fields provided. It must match the Subnet Mask of the other devices on your network. It is set by default to **255.255.255.0**.

**Gateway.** This value is left blank by default. If you have a router on your network, however, enter its IP address here.

## DHCP Server

If you do not have a DHCP server on your network, you can use the Network Attached Storage as your network's DHCP server. To use the Network Attached Storage as your network's DHCP server, select **Enable DHCP Server function**. Then enter the range of IP addresses you want to assign on your network. The first three *Start* and *Finish Address* fields must match the Network Attached Storage's IP address, and the final fields can range from 2 to 253.

**Start IP Address.** Enter the starting IP address of the range you want to assign.

**Finish IP Address.** Enter the last IP address of the range you want to assign.

Click the **DHCP Client Table** button to view a list of the active DHCP clients.

## DNS Server

The DNS Server function translates Internet addresses into IP addresses. Enter the same DNS IP addresses that were set on your network router or gateway or provided by your Internet Service Provider (ISP). You must complete at least one DNS Server entry if you are using the *E-Mail Alerts* feature on the *Status* screen. Otherwise, the DNS entries may be left blank. When you have multiple DNS Server entries, the first available server will be used.

**Primary.** Enter the IP address of the DNS server you want to use.

**Backup 1 and 2.** Enter additional DNS server IP addresses in the fields provided.

Click the **Save** button to save any changes, **Cancel** to clear all changes, or **Help** to get further information about any setting on this screen.
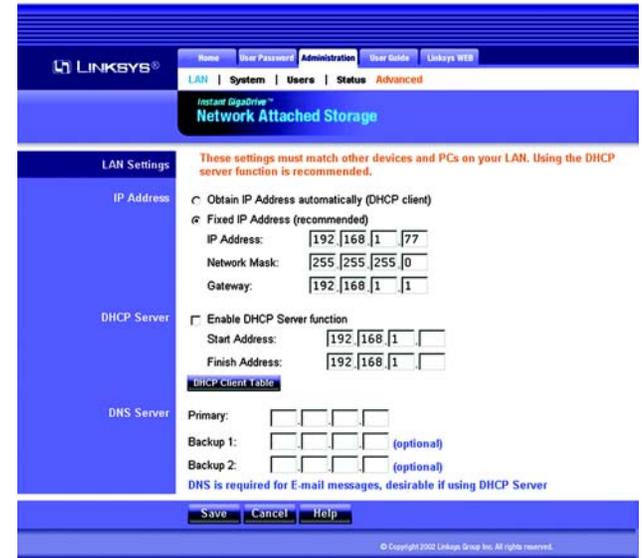


**Figure 5-7: Administration Tab - LAN**

# The Administration Tab - System

From the *System* screen, you will be able to change some of the Network Attached Storage's general and administration settings.

## System Information

### Identification

**Server Name**. In this field, you can enter a new Server Name for the Network Attached Storage. Punctuation and other special characters (e.g. * / | \ ) cannot be used in the name.

**Comment**. This field can be used to enter a comment, such as the Network Attached Storage's location.

**Workgroup**. This should match your networked PC's Workgroup Name. If the Workgroup name does not match, access to the Network Attached Storage is still possible, but the Network Attached Storage will not appear when you click the **Browse Network** button (for example, when you add a network printer).

**Printer Name**. If you connect a printer to the Network Attached Storage, enter the printer's name so it can be identified on your network.

### Location

**Language Support**. Select the appropriate language for users on your network. If multiple languages are used, select the most common.

**Time Zone**. Select your local time zone.

**Local Date**. Enter today's date. The Network Attached Storage will set its own calendar according to the date you provide.

**Local Time**. Enter the present time. The Network Attached Storage will set its own clock according to the time you provide. Remember that this information is not saved until you click the **Save** button.

### WINS

**Enable WINS**. When using a Windows NT or 2000 server, you can use the WINS function to find network devices by name over your server. This is more convenient than having to enter the device's IP address. If your network has a WINS server, select **Enable WINS**.

**WINS Server**. If you enable the WINS feature, then enter the IP address of your WINS server.
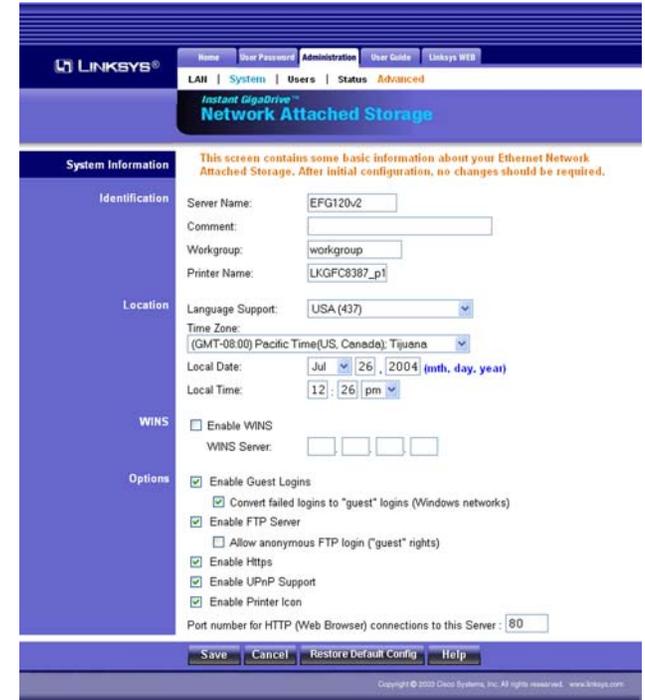


**Figure 5-8: Administration Tab - System**

Options

**Enable Guest Logins**. If enabled, you can enter **guest** as the user ID to log in to the Network Attached Storage.

**Convert failed logins to "guest" logins (Windows networks)**. If enabled, all Windows users will be able to access the Network Attached Storage with guest access rights. By default, the guest user has read/write permission to the public data on each disk.

**Enable FTP Server**. If enabled, third-party FTP software can be used to access the Network Attached Storage.

**Allow anonymous FTP login ("guest" rights)**. If enabled, users will be able to log in through the FTP server just as a user would log directly into the Network Attached Storage. If disabled, FTP users will not have read/write access to public folders.

**Enable HTTPS**. If enabled, users will have SSL-secured access to the Web-based Utility. To log in using the secure IP address, enter **https://192.168.1.77** in the *Address* field of your web browser. Click the **Enter** key. The *Security Alert* screen will appear. Click the **Yes** button to continue.



**Figure 5-9: Secure IP Address**

**Enable UPnP Support**. If enabled, the Network Attached Storage will broadcast its availability to network users with systems that support UPnP, including Windows ME and Windows XP. PCs with UPnP will have additional functionality with the Network Attached Storage.

**Enable Printer Icon**. If enabled, an icon will be created for the printer connected to the Network Attached Storage.

**Port number for HTTP (Web Browser) connections to this Server**. This port number is used for HTTP (web browser) connections to the Network Attached Storage. The default is **80**, which is used by web servers. If you want to change this number, you should use a number greater than 1024 (8080 is often used). Also, if the port is not 80, you must specify the port in your web browser's *Address* field in order to connect. To do this, add ":" (a colon) and the port number after the address, such as http://192.168.1.77:8080. (This example states that the Network Attached Storage's IP address is 192.168.1.77, and the port number is 8080.)



Click the **Save** button to save any changes, or **Cancel** to clear all changes. To reset the Network Attached Storage to its default settings, click the **Restore Default Config** button. To get further information about any setting on this screen, click the **Help** button.

**Figure 5-10: Security Alert Screen**

# The Administration Tab - Users

The *Users* screen allows you to manage all users of the Network Attached Storage. Users can be members of multiple user groups.

## Users Information

### Existing Users

The user list shows all existing users. The details of the selected user are displayed under *Properties*, at the lower half of this screen.

**Groups**. Click the **Groups** button to open the *User Membership* screen, which allows you to view and/or modify the group that the selected user is in. (Refer to the "User Membership" section on the following page.)

**Delete**. Click the **Delete** button to delete the selected user. When deleting a user, you have the option of deleting the group and share with the same name as the user (if they exist).

### Properties

Change the properties for the selected user, or use these settings to add a new user.

**Name**. The user's name must be composed of alphanumeric characters and must not exceed 15 characters in length. Punctuation and other special characters (e.g. * / | \ ) cannot be used in the name.

**Comment**. You can enter a comment if you wish.

**Password**. Enter the user's password here.

**Verify Password**. Re-enter the password here.

**Create matching Group and Share (Private Folder)**. Select **Create matching Group and Share (Private Folder)** to create a group and a share with the same name as the user when you are adding a new user. Then select which disk is used for the private folder, **Disk 1** or **Disk 2**. Read/write access will be granted to the share. (When you are modifying the properties of an existing user, you cannot use the Create matching group and share (Private Folder) option; however, you can change the location of the private folder, if it already exists.)

**Enable Disk Quota of**. If you want to set a disk usage limit for the user, select **Enable Disk Quota of**. Enter the maximum number of megabytes the user is allowed to use.



**Figure 5-11: Administration Tab - Users**

If you wish to add a new user, click the **Save as New User** button after entering all the new settings. To clear the settings, click the **Clear Form** button.

Click the **Save** button to save any changes for an existing user. For more information about this screen, click the **Help** button.

User Membership

On the *User Membership* screen, the *Member of* column lists the group memberships for the selected user, while the *Other Groups* column lists all of the other groups.

**To Add Membership to a Group**. In the right-hand column, select the group or groups whose membership you want to add, and then click the **<<** button. Multiple groups can be selected by holding down the **CTRL** key while you make the selections.

**To Revoke Membership to a Group.** In the left-hand column, select the group or groups whose membership you want to revoke, and then click the **>>** button. Multiple groups can be selected by holding down the **CTRL** key while you make the selections.

Click the **Close** button when finished. Click the **Help** button for more information.

# The Administration Tab - Status

The *Status* screen allows you to check the Network Attached Storage's details and status.

## System Information

### System

**GigaDrive Name**. This is the Network Attached Storage's current name, which will be used to identify it in Network Neighborhood or My Network Places.

**IP Address**. This displays the Network Attached Storage's current IP Address.

**Current Status**. This indicates the Network Attached Storage's current status, which will usually say, "Ready". If the Network Attached Storage is not available, then a message will say why it is not available (for example, it may say "Scandisk in Progress" if the Network Attached Storage is busy undergoing the scandisk process).

Click the **Shutdown Now** button to immediately shut down the Network Attached Storage. This will break all existing connections. Any new settings you may have entered will not be saved.



**Figure 5-12: User Membership Screen**
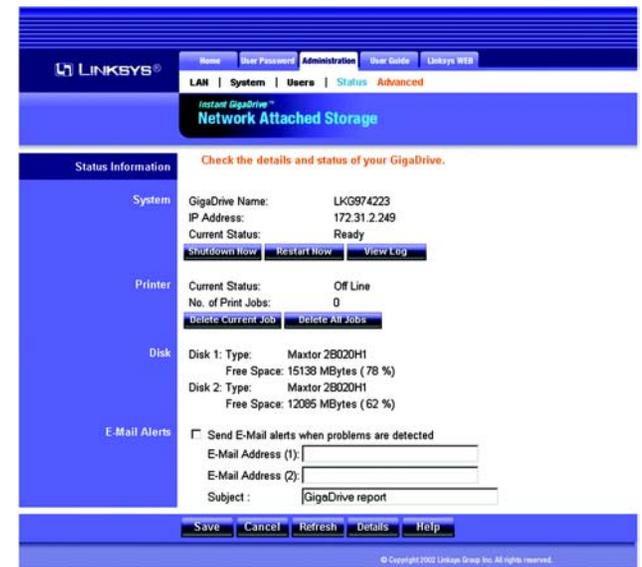


**Figure 5-13: Administration Tab - Status**

Click the **Restart Now** button to restart (reboot) the Network Attached Storage. This will break all existing connections. The Network Attached Storage will immediately restart and won't be available again until after the restart is complete. Any new settings you may have entered will not be saved.

Click the **View Log** button to view the log file in a separate window. The log file is a record of the Network Attached Storage's activities, so it may help with management and troubleshooting.  Click the **Refresh** button to refresh the screen. Click the **Clear Log** button to clear all of the log entries.

## Printer

**Current Status**. The possible states are On-line, Off-line, and Out of Paper.

**No. of Print Jobs**. This is the total number of print jobs in the print queue.

Click the **Delete Current Job** button to clear the current print job; the following print jobs will remain in the print queue and be printed.

Click the **Delete All Jobs** button to clear all print jobs from the print queue.

## Disk

**Disk 1**. This shows the type of hard drive located in the first bay of the Network Attached Storage (the description is provided by the manufacturer). The amount of disk space available to users is also shown.

**Disk 2**. This shows the type of hard drive located in the second bay of the Network Attached Storage (the description is provided by the manufacturer). The amount of free disk space available to users is also shown.

## E-Mail Alerts

**Send E-Mail alerts when problems are detected**. If you want the Network Attached Storage to send e-mail alerts, then click the checkbox. Alerts will be sent when there is a problem requiring the Administrator's attention.

**E-Mail Address (1) and (2)**. Enter the e-mail addresses that should receive e-mail alerts.

**Subject**. Enter the text you want used as the subject heading for e-mail alerts.

Click the **Save** button to save any changes. Click the **Cancel** button to clear any settings that you have entered. Click the **Refresh** button to update the data shown on the screen.  Click the **Details** button to open a new window that displays additional details, including a list of all PCs and other devices that have been allocated IP addresses by the DHCP Server function (if enabled).  Click the **Help** button to get more information about this screen
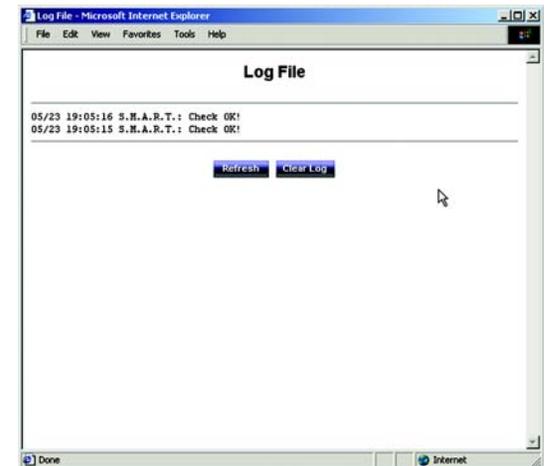


**Figure 5-14: Log File Screen**

## The Administration Tab - Advanced - Groups

When you click the Advanced tab under Administration, several other tabs will appear. The Groups, Shares, Backup, Disk, Upgrade, and Setup tabs are displayed and intended for advanced users, except for the Setup tab. When you click the Setup tab, the LAN, System, Users, and Status tabs will re-appear.

### Group Information

The *Groups* screen allows you to manage the groups of users who use the Network Attached Storage.

### New Group

**Name**. To create a new group, enter a name for the new group and click the **Create** button.

### Existing Groups

This shows the list of all groups. Two groups always exist and cannot be deleted. The "administrators group" is everyone who manages the Network Attached Storage, and the "everyone" group is the group of all users.

To change access rights for a group, select the group from the list and click the **Access** button to display the shares that the group members are able to access. You can then assign, remove, or modify the access rights for the members of this group.

To add or remove members, select the group from the list and click the **Members** button to display the users who are members of this group. You can then add or delete members. The "everyone" group always contains all users, so you cannot add or remove members unless you permanently remove a user through the *Users* screen.

To delete a group, select the group from the list and click the **Delete** button to delete it. The "administrators" and "everyone" groups cannot be deleted.

Click the **Help** button to get more information about this screen.



**Figure 5-15: Administration Tab - Advanced - Groups**

## The Administration Tab - Advanced - Shares

The *Shares* screen allows you to create and manage shares, which are folders available to network users.

### Shares Information

#### Existing Shares

A list of existing shares are displayed here.

To view and manage the users who are allowed to access a share, select the share and click the **Access** button.

To view the contents of a share, select the share and click the **Browse** button.

To delete a share, select the share and click the **Delete** button.

#### Properties

Enter settings for the new share you want to create.

**Name**. Enter a name for the new share.

**Comment**. You can enter a comment if you wish.

**Location**. Select the location of this new share, **Disk 1** or **Disk 2**. Then select **Default folder** if you want to use the default folder, or select **Specify** and enter the folder name in the field provided.

To add a new share, complete the following fields and then click the **Save as New Share** button to save your new share. Click the **Clear Form** button to clear the fields in the "Properties" section.

Click the **Save** button to save any changes. Click the **Help** button to get more information about this screen.
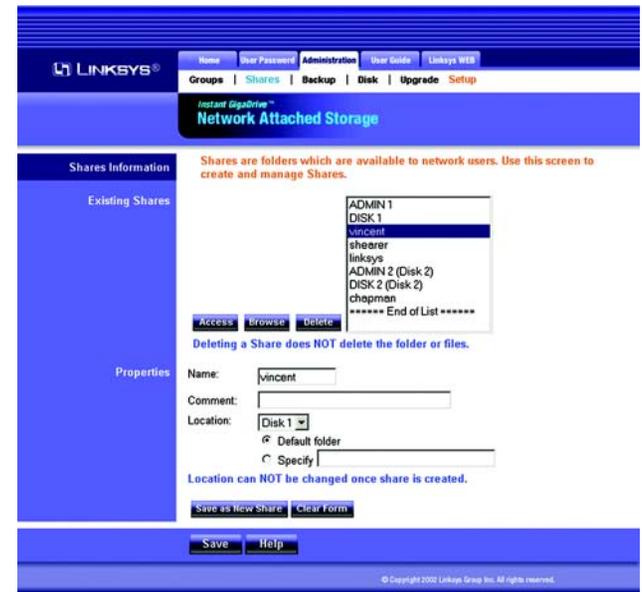


**Figure 5-16: Administration Tab - Advanced - Shares**

**NOTE:** The location of a share cannot be changed after the share has been created.

# The Administration Tab - Advanced - Backup

Use this screen to back up data on the Network Attached Storage. You can also back up or restore the configuration file for the Network Attached Storage.

## Backup Settings

### Data Backup

**Enable data backup from Disk 1 to Disk 2**. If you have two disk drives, then you can have Disk 1 data backed up on Disk 2. If you want to use this feature, click the checkbox.

**Backup Time**. To have the data backup performed on a regular basis, select the day and time you want the backup to occur.

Click the **Start Backup Now** button to immediately start the backup process. (You must have **Enable data backup from Disk 1 to Disk 2** already selected.)

### Config Backup

The configuration file contains all network information, as well as the User, Group, and Share information. It does NOT include any information about the files stored on the Network Attached Storage.

Click the **Download** button to back up the configuration file of the Network Attached Storage on a computer.

Click the **Upload** button to restore the configuration file that you had previously saved to a computer.

Click the **Save** button to save any changes. Click the **Cancel** button to cancel all changes. Click the **Help** button to get more information about this screen.



**Figure 5-17: Administration Tab - Advanced - Backup**

**IMPORTANT:** Uploading/restoring the configuration file will overwrite and destroy any existing configuration.

## The Administration Tab - Advanced - Disk

The *Disk* screen allows you to perform disk maintenance.

### Disk Settings

#### Format Disk

You can format a new hard drive using this screen.

**Disk 1 and 2 Status**. The format status information of Disk 1 and 2 is shown here.

After you install a new hard drive, you will need to format the hard drive using this Utility. To format Disk 1, click the **Format Disk 1** button. To format Disk 2, click the **Format Disk 2** button.

#### Self-test (S.M.A.R.T.)

This test tells you about the condition of your hard drive, which must support S.M.A.R.T. in order for you to run the test. (Check the documentation for your hard drive for more information.)

**Disk 1 and 2 Status**. The self-test status information of Disk 1 and 2 is shown here.

**Run Test**. To run the test on a regular basis, select the frequency and time you want the test to run.

Click the **Test Now** button to run the test immediately.

#### Scandisk

This checks your hard drive's directory structure, amount of available space, and overall condition of files. It corrects any errors that are found. The program should be run regularly and will also run automatically if an error condition is detected, such as an abnormal shutdown due to loss of power.

**Disk 1 and 2 Status**. The scandisk status information of Disk 1 and 2 is shown here.

**Run Scandisk**. To run scandisk on a regular basis, select the frequency and time you want the scandisk to run.

**Scan**. To run scandisk on Disk 1, select **Disk 1**. To run scandisk on Disk 2, select **Disk 2**.

Click the **Start/Stop Disk 1** button to scan Disk 1 or stop the scan. Click the **Start/Stop Disk 2** button to scan Disk 2 or stop the scan. (The hard drive cannot be accessed during a scandisk.)
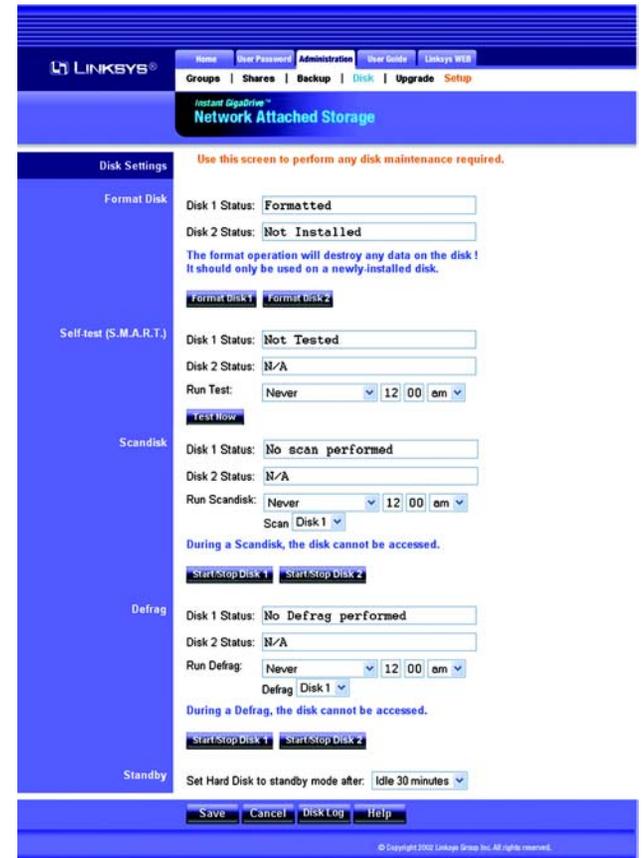


**Figure 5-18: Administration Tab - Advanced - Disk**

## Defrag

This organizes the data on your hard drive, eliminating fragmented files, which slow down performance.

**Disk 1 and 2 Status**. The defrag status information of Disk 1 and 2 is shown here.

**Run Defrag**. To run defrag on a regular basis, select the frequency and time you want the defrag to run.

**Defrag**. To defrag Disk 1, select **Disk 1**. To defrag Disk 2, select **Disk 2**.

Click the **Start/Stop Disk 1** button to scan Disk 1 or stop the defrag. Click the **Start/Stop Disk 2** button to scan Disk 2 or stop the defrag. (The hard drive cannot be accessed during a defrag.)

## Standby

To save power, you can configure the Network Attached Storage to put the hard drive(s) in standby mode after a certain length of time.

**Set Hard Drive to standby mode after**. Select the amount of time you want the hard drive(s) to wait before going into standby mode.

Click the **Save** button to save any changes. Click the **Cancel** button to cancel all changes. Click the **Disk Log** button to view entries logging the data maintenance-related activities. Click the **Help** button to get more information about this screen.

## The Administration Tab - Advanced - Upgrade

The *Upgrade* screen allows you to upgrade the firmware for the Network Attached Storage.

### Upgrade Settings

Current Firmware

**Current Firmware Version**. This shows you the current version of the Network Attached Storage's firmware. Click the **Check for Update** button to browse the Linksys website for the latest version of the Network Attached Storage's firmware.

Upgrade

**Upgrade File**. First, download the new firmware file to your PC and extract it. Then click the **Browse** button to locate the extracted file on your PC. Click the **Start Upgrade** button to begin the process.

Click the **Help** button to get more information about this screen.

## The Administration Tab - Advanced - Setup

Click the **Setup** tab to open the Administration tab's *LAN* screen.

## The User Guide Tab

Click this tab to open this User Guide online.

## The Linksys WEB Tab

Click this tab to visit the Linksys website at *www.linksys.com*.



**Figure 5-19: Administration Tab - Advanced - Upgrade**

# Appendix A: Troubleshooting

This appendix provides solutions to problems that may occur during the installation and operation of the Network Attached Storage. Read the description below to solve your problems. If you can't find an answer here, check the Linksys website at *www.linksys.com*.

1. **The Network Attached Storage's Utility cannot detect the Network Attached Storage.**
   Go through this checklist until your problem is solved:
   - Check that the Network Attached Storage is properly installed, the LAN connections are secure, and the Network Attached Storage is powered ON.
   - If you are using a router, make sure that your PC and the Network Attached Storage are on the same network segment.
   - Make sure that your PC has the TCP/IP network protocol installed. (See "Appendix D: Windows Help" for more information.)

2. **The Network Attached Storage is configured, but I can't find it in Network Neighborhood.**
   Go through this checklist until your problem is solved:
   - Go to the Find function in the Start menu. Choose **Computer**, and then enter the Network Attached Storage's name.  In Windows 2000, go to Files and Folders and use the "Search for a Computer" option.
   - If this doesn't work, choose the Network option of the Control Panel to check that the TCP/IP protocol is installed. If it isn't installed, use **Add** -> **Protocol** -> **Microsoft** -> **TCP/IP** to install it.  In Windows 2000, click **Install**, not Add.  In Windows NT, click the **Protocols** tab, and then **Add**.
   - Check the network bindings.  First, make sure that the TCP/IP protocol is bound to your network adapter or card (NIC). Then, select your network card in the Control Panel, click **Properties**, and choose the **Bindings** tab. If TCP/IP is not bound (checked), check it.
   - Make sure that the TCP/IP -> network card entry is bound to the Client for Microsoft Networks service. Select the TCP/IP entry for your network adapter or card, click **Properties**, and then choose the **Bindings** tab. If Client for Microsoft Networks is not bound (checked), check it.
   - If you don't have a router, make sure that your IP Address is compatible with the Network Attached Storage's IP Address. This means it needs to be in the same address range (e.g. 192.168.1.3 to 192.168.1.254) and using the same Subnet Mask (e.g. 255.255.255.0).
   - If you do have a router, check that your Gateway IP Address is set correctly. Ask your LAN administrator for the correct value.
   - If you have changed the name of the Network Attached Storage, change the name back to the default name.

3. **When I click the Network Attached Storage's icon in Network Neighborhood, I'm prompted for a password.**
   This can happen in the following situations:
   - Your Windows login name is recognized by the Network Attached Storage, but your login password is not. Simply enter your password, or make your Windows password the same as the Network Attached Storage's password.
   - Your Windows login name is not recognized by the Network Attached Storage, so by default you are given guest access rights. If you are not the Network Administrator, ask your Administrator to create a user name for you. (Use the same name as your login name.)
   - You do not have access permission for this share. If you are not the Network Administrator, ask your Administrator to grant you access.

4. **When using the Web-based Utility of the Network Attached Storage, some of the data will not fit on the screen, and there is no scroll bar.**
   You may be using extra-large fonts in your browser or in Windows. To change your browser's font size, select **View** from your browser's menu, and change the font size there. To change the size of your Windows fonts, click the **Start** button. Select **Settings** and click **Control Panel**. Double-click **Display**. Select **Settings**. Click the **Advanced** button. Change the font size to either **Small** or **Large** (both should work). Click the **OK** button to save your change.

5. **A print job does not print and no error message is displayed.**
   The amount of free disk space on the Network Attached Storage is probably not sufficient to spool (queue) the print job. The Network Attached Storage's disk usage can be checked using the Status - Disk screen of the Web-based Utility. If this is the problem, then you must delete some print jobs. Follow these instructions:
   1. Select **Printer** from the Statue menu of the Web-based Utility.
   2. Select **Delete Current Job** to delete the current print job, or select **Delete All Jobs** to delete all print jobs.

   **If your questions are not addressed here, refer to the Linksys website, *www.linksys.com*.**

# Appendix B: Installing a Second Hard Drive

> **NOTE:** The Network Attached Storage support IDE Ultra DMA (or UDMA) hard drives with a throughput of 33-66Mbps (ATA/33, ATA/66) and a rotation speed of 5400 or 7200 rpms.

When you are ready to install a second hard drive into the Network Attached Storage, follow these instructions:

1.  Power down the Network Attached Storage by pressing the power button on the front panel. Then unplug the power adapter from the Network Attached Storage.

2.  Unlock the second drive bay. This bay is empty and will hold your new drive.

3.  Make sure that your hard drive's master/slave jumpers are set to **Cable Select** before putting it in the drive tray. For instructions on these jumper settings, refer to the documentation included with your hard drive.

4.  Attach the IDE cable from the drive tray to your hard drive. (The IDE cable is the wider of the two cables in the drive tray.) Make sure you plug this securely into your hard drive.



**Figure B-1: Attach IDE Cable**

5.  Attach the power cable from the drive tray to your hard drive. (The power cable is the smaller of the two cables in the drive tray.) Make sure you plug this securely into your hard drive.



**Figure B-2: Attach Power Cable**

6. Check the connections. Make sure these connections are tight before securing the drive to the tray.



**Figure B-3: Make Sure Connections are Tight**

7. Insert a screw through the tray's left side and into your hard drive. Tighten it to secure the drive to the tray.



**Figure B-4: Insert Screw through Left Side of Tray**

8. Insert a screw through the tray's right side and into your hard drive. To tighten it and secure the drive to the tray on the right side, you will need a narrow screwdriver that fits through the hole.

9. Slide the drive into the second drive bay.

10. Lock the tray into the Network Attached Storage's bay. The tray must be locked in for the Network Attached Storage to function properly.

11. Plug the power adapter into the Network Attached Storage. Then power it back on.

12. Open your networked computer's web browser.



**Figure B-5: Insert Screw through Right Side of Tray**

13. Enter **http://192.168.1.77** in the *Address* field and press the **Enter** key.
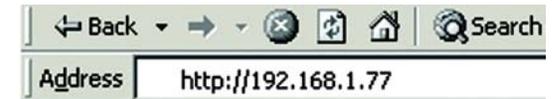


**Figure B-6: Access the Web-based Utility**

14. Click the **Administration** tab and then the **Advanced** tab.

15. click the **Disk** tab.

16. In the *Format Disk* section, Disk 2 will display its status as "Not Formatted." To format your new hard drive, click the **Format Disk 2** button.

> ⚠️ **IMPORTANT:** Formatting a hard drive will delete all data on that drive. Always verify that you do not wish to save any data on a drive before formatting it.

17. After the hard drive has been formatted, it will be ready for use.

**Congratulations! The installation of your second hard drive is complete.**
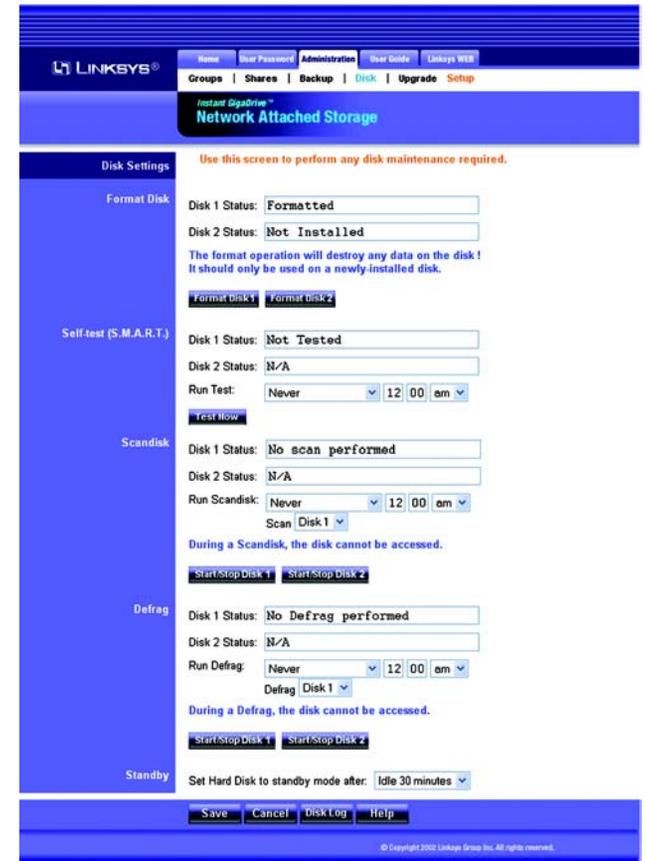


**Figure B-7: Format Disk 2**

# Appendix C: Setting Up the Built-in PrintServer

![Note icon] **NOTE:** As screens vary between operating systems, you may find that the screenshots in this appendix look a little different from your own operating system. The instructions, however, are still applicable.

When you are ready to use the Network Attached Storage's built-in PrintServer, follow these instructions:

1. Power down the Network Attached Storage by pressing the power button on the front panel.

2. Connect your printer's parallel cable to the PRINTER port on the back panel of the Network Attached Storage.

3. Power on the Network Attached Storage.

4. On your Windows desktop, click the **Start** button.

5. Select **Settings**, and then click **Control Panel**.

6. Double-click the **Printers** folder.
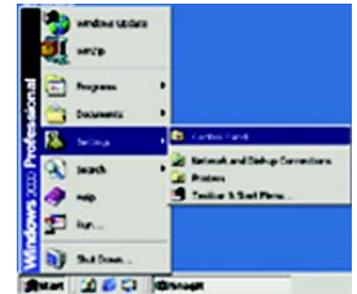


**Figure C-1: Click Start Button**
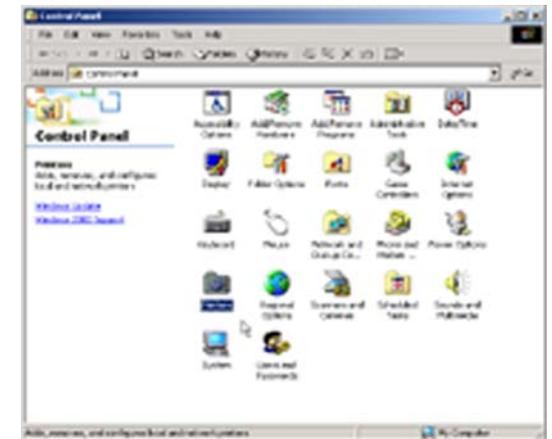


**Figure C-2: Double-Click Printers Folder**

7. Double-click the **Add Printer** icon to begin the Add Printer Wizard.



**Figure C-3: Double-Click Add Printer Icon**

8. On the *Welcome to the Add Printer Wizard* screen, click the **Next** button.



**Figure C-4: Welcome to the Add Printer Wizard Screen**

9. Because you are adding this printer to your network, select **Network printer** and click the **Next** button.
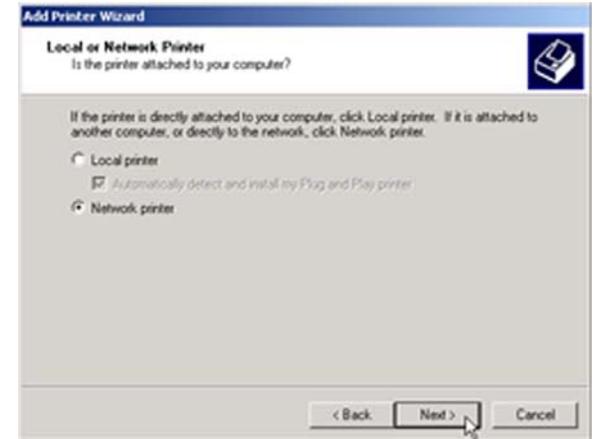
**Figure C-5: Local or Network Printer Screen**

10. On the *Locate Your Printer* screen, select **Type the printer name, or click Next to browse for a printer**. In the *Name* field, enter the location in this format: **\\Lkg**(*last six digits of the server name located on the back of the Network Attached Storage)***\Lkg**(*last six digits of the server name located on the back of the Network Attached Storage)_**p1**. This is the default format used to locate the printer.

For example, if the last six digits of the server name are 0F0016, then you would enter **\\Lkg0F0016\LKG0F0016_p1**.

After you have entered the location of your printer, click the **Next** button.

**Figure C-6: Locate Your Printer Screen**

11. You will be asked to install a printer driver. Click the **OK** button to do so now.
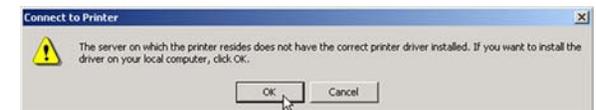
**Figure C-7: Need Printer Driver Installed**

12. On the *Add Printer Wizard* screen, select your printer's manufacturer from the list on the left. Then select your printer's model from the list on the right. Then click the **OK** button.
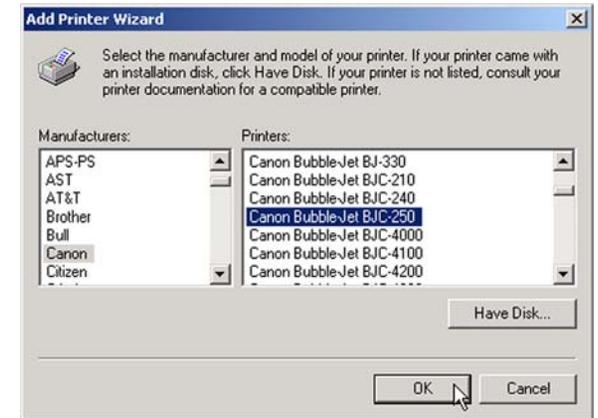


**Figure C-8: Select Your Printer**

13. Review your printer's settings. If the settings are correct, click the **Finish** button. If you need to make any changes, click the **Back** button. To exit the Wizard without saving any settings, click the **Cancel** button.



**Figure C-9: Completing the Add Printer Wizard Screen**

14. After you click the Finish button, you will see the Printers folder. This folder will show all printers available on your network, including the printer you have just added.

   If you want to change any settings, right-click the printer's icon and select **Properties**.

   You will be asked if you want to install the driver, but since you have already installed it, click the **No** button. The *Properties* window will then open, and you can change the printer's settings.

   **Congratulations! You have added a printer to your network.**
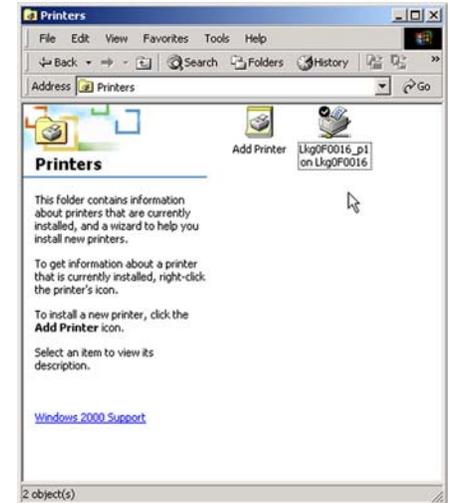


**Figure C-10: Change Printer Properties**

# Appendix D: Windows Help

Almost all networking products require Microsoft Windows. Windows is the most used operating system in the world and comes with many features that help make networking easier. These features can be accessed through Windows Help and are described in this appendix.

## TCP/IP

Before a computer can communicate within a network, TCP/IP must be enabled. TCP/IP is a set of instructions, or protocol, all PCs follow to communicate over a network. This is true for wireless networks as well. Your PCs will not be able to utilize wireless networking without having TCP/IP enabled. Windows Help provides complete instructions on enabling TCP/IP.

## Shared Resources

If you wish to share printers, folder, or files over your network, Windows Help provides complete instructions on utilizing shared resources.

## Network Neighborhood/My Network Places

Other PCs on your network will appear under Network Neighborhood or My Network Places (depending upon the version of Windows you're running). Windows Help provides complete instructions on adding PCs to your network.

# Appendix E: Glossary

**Boot** - To start a device and cause it to start executing instructions.

**Browser** - An application program that provides a way to look at and interact with all the information on the World Wide Web.

**Byte** - A unit of data that is usually eight bits long

**DHCP** (**D**ynamic **H**ost **C**onfiguration **P**rotocol) - A networking protocol that allows administrators to assign temporary IP addresses to network computers by "leasing" an IP address to a user for a limited amount of time, instead of assigning permanent IP addresses.

**DNS** (**D**omain **N**ame **S**erver) - The IP address of your ISP's server, which translates the names of websites into IP addresses.

**Domain** - A specific name for a network of computers.

**Download** - To receive a file transmitted over a network.

**Ethernet** - IEEE standard network protocol that specifies how data is placed on and retrieved from a common transmission medium.

**Firmware** - The programming code that runs a networking device.

**Gateway** - A device that interconnects networks with different, incompatible communications protocols.

**Hardware** - The physical aspect of computers, telecommunications, and other information technology devices.

**HTTP** (**H**yper**T**ext **T**ransport **P**rotocol) - The communications protocol used to connect to servers on the World Wide Web.

**IEEE** (The **I**nstitute of **E**lectrical and **E**lectronics **E**ngineers) - An independent institute that develops networking standards.

**IP** (**I**nternet **P**rotocol) - A protocol used to send data over a network.

**IP Address** - The address used to identify a computer or device on a network.

**ISP** (**I**nternet **S**ervice **P**rovider) - A company that provides access to the Internet.

**LAN** - The computers and networking products that make up your local network.

**Network** - A series of computers or devices connected for the purpose of data sharing, storage, and/or transmission between users.

**Port** - The connection point on a computer or networking device used for plugging in cables or adapters.

**Server** - Any computer whose function in a network is to provide user access to files, printing, communications, and other services.

**Subnet Mask** - An address code that determines the size of the network.

**Switch** - 1. A data switch that connects computing devices to host computers, allowing a large number of devices to share a limited number of ports. 2. A device for making, breaking, or changing the connections in an electrical circuit.

**TCP** (**T**ransmission **C**ontrol **P**rotocol) - A network protocol for transmitting data that requires acknowledgement from the recipient of data sent.

**TCP/IP** (**T**ransmission **C**ontrol **P**rotocol/**I**nternet **P**rotocol) - A set of instructions PCs use to communicate over a network.

**Upgrade** - To replace existing software or firmware with a newer version.

**Upload** - To transmit a file over a network.

**URL** (**U**niform **R**esource **L**ocator) - The address of a file located on the Internet.

# Appendix F: Specifications

| | |
|---|---|
| Model | EFG120 |
| Standards | IEEE 802.3, IEEE 802.3u, IEEE 802.3ab |
| Ports | 1 10/100/1000 Mbps RJ-45, 1 DB-25 Parallel Port |
| Button | 1 Power Button |
| Cabling Type | Category 5e or better |
| LED Indicators | Ready, Gigabit, Disk, Disk Full, Backup, Disk 1, Disk 2 |
| Dimensions (W x H x D) | 11.42" x 3.23" x 9.17" (290 mm x 82 mm x 233 mm) |
| Unit Weight | 8.16 lbs. (3.7 kg) |
| Power | 12V, 5A |
| Certifications | FCC Class B, CE Class B, VCCI Class B |
| Operating Temp. | -5ºC to 50ºC (23ºF to 122ºF) |
| Storage Temp. | -20ºC to 70ºC (-4ºF to 158ºF) |
| Operating Humidity | 10% to 85% Non-Condensing |
| Storage Humidity | 5% to 90% Non-Condensing |

# Appendix G: Warranty Information

LIMITED WARRANTY

Linksys warrants to You that, for a period of one year (the "Warranty Period"), your Linksys Product will be substantially free of defects in materials and workmanship under normal use.  Your exclusive remedy and Linksys' entire liability under this warranty will be for Linksys at its option to repair or replace the Product or refund Your purchase price less any rebates.  This limited warranty extends only to the original purchaser.

If the Product proves defective during the Warranty Period call Linksys Technical Support in order to obtain a Return Authorization Number, if applicable.  BE SURE TO HAVE YOUR PROOF OF PURCHASE ON HAND WHEN CALLING.  If You are requested to return the Product, mark the Return Authorization Number clearly on the outside of the package and include a copy of your original proof of purchase.  RETURN REQUESTS CANNOT BE PROCESSED WITHOUT PROOF OF PURCHASE.  You are responsible for shipping defective Products to Linksys.  Linksys pays for UPS Ground shipping from Linksys back to You only.  Customers located outside of the United States of America and Canada are responsible for all shipping and handling charges.

ALL IMPLIED WARRANTIES AND CONDITIONS OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE ARE LIMITED TO THE DURATION OF THE WARRANTY PERIOD.  ALL OTHER EXPRESS OR IMPLIED CONDITIONS, REPRESENTATIONS AND WARRANTIES, INCLUDING ANY IMPLIED WARRANTY OF NON-INFRINGEMENT, ARE DISCLAIMED.  Some jurisdictions do not allow limitations on how long an implied warranty lasts, so the above limitation may not apply to You.  This warranty gives You specific legal rights, and You may also have other rights which vary by jurisdiction.

This warranty does not apply if the Product (a) has been altered, except by Linksys, (b) has not been installed, operated, repaired, or maintained in accordance with instructions supplied by Linksys, or (c) has been subjected to abnormal physical or electrical stress, misuse, negligence, or accident.  In addition, due to the continual development of new techniques for intruding upon and attacking networks, Linksys does not warrant that the Product will be free of vulnerability to intrusion or attack.

TO THE EXTENT NOT PROHIBITED BY LAW, IN NO EVENT WILL LINKSYS BE LIABLE FOR ANY LOST DATA, REVENUE OR PROFIT, OR FOR SPECIAL, INDIRECT, CONSEQUENTIAL, INCIDENTAL OR PUNITIVE DAMAGES, REGARDLESS OF THE THEORY OF LIABILITY (INCLUDING NEGLIGENCE), ARISING OUT OF OR RELATED TO THE USE OF OR INABILITY TO USE THE PRODUCT (INCLUDING ANY SOFTWARE), EVEN IF LINKSYS HAS BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGES.  IN NO EVENT WILL LINKSYS' LIABILITY EXCEED THE AMOUNT PAID BY YOU FOR THE PRODUCT.  The foregoing limitations will apply even if any warranty or remedy provided under this Agreement fails of its essential purpose.  Some jurisdictions do not allow the exclusion or limitation of incidental or consequential damages, so the above limitation or exclusion may not apply to You.

Please direct all inquiries to: Linksys, P.O. Box 18558, Irvine, CA 92623.

# Appendix H: Regulatory Information

FCC STATEMENT

This product has been tested and complies with the specifications for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used according to the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which is found by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

•   Reorient or relocate the receiving antenna
•   Increase the separation between the equipment or devices
•   Connect the equipment to an outlet other than the receiver's
•   Consult a dealer or an experienced radio/TV technician for assistance

INDUSTRY CANADA STATEMENT

This device complies with Canadian ICES-003 rule.

Cet appareil est conforme à la norme NMB-003 d'Industry Canada.

EC DECLARATION OF CONFORMITY (EUROPE)

In compliance with the EMC Directive 89/336/EEC, Low Voltage Directive 73/23/EEC, and Amendment Directive 93/68/EEC, this product meets the requirements of the following standards:

•   EN55022 Emission
•   EN55024 Immunity

# Appendix I: Contact Information

Need to contact Linksys?
Visit us online for information on the latest products and updates
to your existing products at:                                         http://www.linksys.com or
                                                                      ftp.linksys.com

Can't find information about a product you want to buy
on the web? Do you want to know more about networking
with Linksys products? Give our advice line a call at:                800-546-5797 (LINKSYS)
Or fax your request in to:                                            949-823-3002

If you experience problems with any Linksys product,
you can call us at:                                                   800-326-7114
Don't wish to call? You can e-mail us at:                             support@linksys.com

If any Linksys product proves defective during its warranty period,
you can call the Linksys Return Merchandise Authorization
department for obtaining a Return Authorization Number at:            949-823-3000
(Details on Warranty and RMA issues can be found in the Warranty
Information section in this Guide.)